



**AAEON Technology INC.**  
ISO-9001/ISO-14001 Certified  
Industrial Automation PCs

# **SBC-558**

## **Reliability Prediction Report**

### **(MTBF)**

**Release Date: Feb. 1, 2000**

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**Issue Stamp**

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**QA Manager**

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**QE Manager**

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**Test Engineer**

# Reliability Prediction (MTBF)

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**I . Model Name: SBC-558**

**II . Description: Intel Tillamook MMX Half-size CPU Card with LCD, PC/104 Plus, Ethernet, & SSD**

**III. Prediction Date: Feb. 01, 2000**

**IV. Prediction Site: AAEON QE Dept.**

**V. Predicted by : Chasel Wang**

**VI. Equipment: Relx Ver.7.0 Visual Reliability Software**

**VII. Simulation Environment:**

- **Temperature: 25 degrees C**
- **Standard: Telcordia (Bellcore) Standard**

**VIII. Prediction Result:**

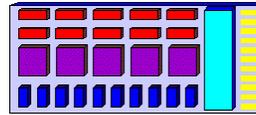
- **Failure Rate: 10.721637 ppm**
- **MTBF: 93,269. Hours**

**IX. Term and Definition:**

- **Unit**            **An assembly of device.**
- **Duty Cycle**    **Used to specify the percentage of time that the element is in an on state, and it is equal to the percentage of total time the item is in the active environment.**
- **Quantity**        **The quantity of the selected item.**
- **Failure Rate**   **Used to specify that the failure rate is to be calculated based the selected Calculation models. The multiplier is 1,000,000.**
- **MTBF**            **MTBF is always specified in hours.**

### AAEON Reliability Prediction Report

**Part Number** 9697558000-1  
**Reference Des**  
**Date** 02. 1, 2000  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temperature** 25.00

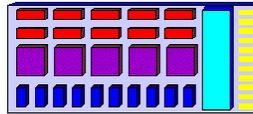


**Description** Top-level assembly  
**File Name** 558a12.RPJ  
**Time** 4:50 PM  
**Failure Rate** 10.721637  
**MTBF** 93,269

| Assembly Name | Part Number  | Model    | Method          | Environment            | Duty Cycle | Qty  | Failure Rate | MTBF   |
|---------------|--------------|----------|-----------------|------------------------|------------|------|--------------|--------|
| SBC-558       | 9697558000-1 | Bellcore | Method I Case 3 | GF, GU - Ground Fixed, | 100.00     | 1.00 | 10.721637    | 93,269 |

**AAEON Reliability Prediction Report**

**Part Number** 9697558000-1  
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**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temperature** 25.00

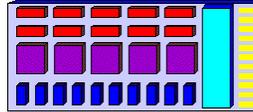


**Description** Top-level assembly  
**File Name** 558a12.RPJ  
**Time** 4:50 PM  
**Failure Rate** 10.721637  
**MTBF** 93,269

| Part Number | Category           | Location                               | Calculation Model | Quality | Tem. Rise | Failure Rate, Unit | Quantity | Failure Rate, % | Failure Rate | MTBF, Unit   |
|-------------|--------------------|--|-------------------|---------|-----------|--------------------|----------|-----------------|--------------|--------------|
| 106B501030  | Resistor           | J7                                     | Bellcore Issue 6  | Level I |           | 0.011379           | 1.00     | .1061           | 0.011379     | 87878027.07  |
| 1119610291  | Capacitor          | C3-5,C13-14,C27,F1-2                   | Bellcore Issue 6  | Level I |           | 0.075338           | 8.00     | 5.6214          | 0.602705     | 13273483.15  |
| 1119610293  | Capacitor          | C28,C2                                 | Bellcore Issue 6  | Level I |           | 0.071121           | 2.00     | 1.3267          | 0.142243     | 14060484.33  |
| 14S6202000  | Integrated Circuit | U22                                    | Bellcore Issue 6  | Level I | 10.00     | 0.329865           | 1.00     | 3.0766          | 0.329865     | 3031542.00   |
| 1652512200  | Connection         | CN8                                    | Bellcore Issue 6  | Level I |           | 0.006828           | 1.00     | .0637           | 0.006828     | 146463378.45 |
| 1653002101  | Connection         | FAN1                                   | Bellcore Issue 6  | Level I |           | 0.001138           | 1.00     | .0106           | 0.001138     | 878780270.71 |
| 1653005201  | Connection         | CN2                                    | Bellcore Issue 6  | Level I |           | 0.005690           | 1.00     | .0531           | 0.005690     | 175756054.14 |
| 1653120225  | Connection         | CN13                                   | Bellcore Issue 6  | Level I |           | 0.022759           | 1.00     | .2123           | 0.022759     | 43939013.54  |
| 1653130420  | Connection         | PC11                                   | Bellcore Issue 6  | Level I |           | 0.068276           | 1.00     | .6368           | 0.068276     | 14646337.85  |
| 1653132220  | Connection         | CN12                                   | Bellcore Issue 6  | Level I |           | 0.036414           | 1.00     | .3396           | 0.036414     | 27461883.46  |
| 1654106020  | Connection         | CN14                                   | Bellcore Issue 6  | Level I |           | 0.004552           | 1.00     | .0425           | 0.004552     | 219695067.68 |
| 1654409105  | Connection         | CN10                                   | Bellcore Issue 6  | Level I |           | 0.005121           | 1.00     | .0478           | 0.005121     | 195284504.60 |
| 1654515304  | Connection         | CN6                                    | Bellcore Issue 6  | Level I |           | 0.008535           | 1.00     | .0796           | 0.008535     | 117170702.76 |
| 1655112010  | Connection         | PWR1                                   | Bellcore Issue 6  | Level I |           | 0.006828           | 1.00     | .0637           | 0.006828     | 146463378.45 |
| 1659254005  | Connection         | CN3                                    | Bellcore Issue 6  | Level I |           | 0.002845           | 1.00     | .0265           | 0.002845     | 351512108.28 |
| 1750119013  | Miscellaneous      | BT1                                    | Bellcore Issue 6  | Level I |           | 0.900000           | 1.00     | 8.3942          | 0.900000     | 1111111.11   |
| 1759400002  | Miscellaneous      | BZ1                                    | Bellcore Issue 6  | Level I |           | 0.150000           | 1.00     | 1.3990          | 0.150000     | 6666666.67   |
| 101A501039  | Resistor           | R35-37,R39,R46                         | Bellcore Issue 6  | Level I |           | 0.002268           | 5.00     | .1058           | 0.011339     | 440974090.03 |
| 101A512109  | Resistor           | R7                                     | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03 |
| 101A527409  | Resistor           | R8                                     | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03 |
| 101A590929  | Resistor           | R43                                    | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03 |
| 101A700009  | Resistor           | R15,R48,R73,R78,R119,R130,R13-8-139    | Bellcore Issue 6  | Level I |           | 0.002268           | 8.00     | .1692           | 0.018142     | 440974090.03 |
| 101A701009  | Resistor           | R34,R38,R50,R52,R54,R60,R62-63-,R82-83 | Bellcore Issue 6  | Level I |           | 0.002268           | 10.00    | .2115           | 0.022677     | 440974090.03 |
| 101A702059  | Resistor           | R26                                    | Bellcore Issue 6  | Level I |           | 0.013606           | 1.00     | .1269           | 0.013606     | 73495681.67  |
| 101A702209  | Resistor           | R134                                   | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03 |
| 101A702229  | Resistor           | R113                                   | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03 |
| 101A703309  | Resistor           | R18,R20-22,R24-25,R71-72,R88-89-,R93   | Bellcore Issue 6  | Level I |           | 0.002268           | 11.00    | .2327           | 0.024945     | 440974090.03 |
| 101A703329  | Resistor           | R122                                   | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03 |

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**Date** 02. 1, 2000  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temperature** 25.00

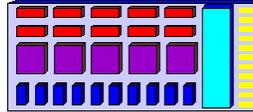


**Description** Top-level assembly  
**File Name** 558a12.RPJ  
**Time** 4:50 PM  
**Failure Rate** 10.721637  
**MTBF** 93,269

| Part Number | Category | Location   | Calculation Model | Quality | Tem. Rise | Failure Rate, Unit | Quantity | Failure Rate, % | Failure Rate | MTBF, Unit   |
|-------------|----------|--|-------------------|---------|-----------|--------------------|----------|-----------------|--------------|--------------|
| 101A704729  | Resistor | R29,R31,R51,R53,R55,R58-59,R61-,R65,R68-69,R74-77,R79-81,R85-8-7,R92,R94-95,R97-98,R101,R104,-R114-115,R120,R135 | Bellcore Issue 6  | Level I |           | 0.002268           | 32.00    | .6768           | 0.072567     | 440974090.03 |
| 101A705629  | Resistor | R27,R30,R45,R151   | Bellcore Issue 6  | Level I |           | 0.002268           | 4.00     | .0846           | 0.009071     | 440974090.03 |
| 101A707509  | Resistor | R16-17,R32-33  | Bellcore Issue 6  | Level I |           | 0.002268           | 4.00     | .0846           | 0.009071     | 440974090.03 |
| 101A708229  | Resistor | R131,R133,R146,R150,R154,R158  | Bellcore Issue 6  | Level I |           | 0.002268           | 6.00     | .1269           | 0.013606     | 440974090.03 |
| 101A710009  | Resistor | R57  | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03 |
| 101A710019  | Resistor | R11,R66,R96,R121,R125,R142-143-,R149,R157,R159   | Bellcore Issue 6  | Level I |           | 0.002268           | 10.00    | .2115           | 0.022677     | 440974090.03 |
| 101A710029  | Resistor | R70,R123,R126-127,R136,R140,R-153  | Bellcore Issue 6  | Level I |           | 0.002268           | 7.00     | .1481           | 0.015874     | 440974090.03 |
| 101A715029  | Resistor | R13-14   | Bellcore Issue 6  | Level I |           | 0.002268           | 2.00     | .0423           | 0.004535     | 440974090.03 |
| 101A722009  | Resistor | R147   | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03 |
| 101A727009  | Resistor | R116-117   | Bellcore Issue 6  | Level I |           | 0.002268           | 2.00     | .0423           | 0.004535     | 440974090.03 |
| 101A733009  | Resistor | R28,R47,R67,R148,R152,R155-156   | Bellcore Issue 6  | Level I |           | 0.002268           | 7.00     | .1481           | 0.015874     | 440974090.03 |
| 101A747009  | Resistor | R1,R49,R56   | Bellcore Issue 6  | Level I |           | 0.002268           | 3.00     | .0635           | 0.006803     | 440974090.03 |
| 105A500133  | Resistor | R5   | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03 |
| 105A502833  | Resistor | R40  | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03 |
| 105A505163  | Resistor | R4   | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03 |
| 105A510003  | Resistor | R19,R23  | Bellcore Issue 6  | Level I |           | 0.002268           | 2.00     | .0423           | 0.004535     | 440974090.03 |
| 105A511503  | Resistor | R160   | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03 |
| 105A511513  | Resistor | R6   | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03 |
| 105A515403  | Resistor | R84,R91  | Bellcore Issue 6  | Level I |           | 0.002268           | 2.00     | .0423           | 0.004535     | 440974090.03 |
| 105A518703  | Resistor | R161   | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03 |
| 105A521033  | Resistor | R41  | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03 |
| 105A554903  | Resistor | R105   | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03 |
| 105A556003  | Resistor | R12  | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03 |
| 105A560423  | Resistor | R42,R44  | Bellcore Issue 6  | Level I |           | 0.002268           | 2.00     | .0423           | 0.004535     | 440974090.03 |
| 105A561903  | Resistor | R106   | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03 |
| 105A702233  | Resistor | R137   | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03 |
| 105A702723  | Resistor | R64,R90,R100,R102,R110,R124,R-128-129,R132,R141,R144-145   | Bellcore Issue 6  | Level I |           | 0.002268           | 12.00    | .2538           | 0.027212     | 440974090.03 |

**AAEON Reliability Prediction Report**

**Part Number** 9697558000-1  
**Reference Des**  
**Date** 02. 1, 2000  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temperature** 25.00

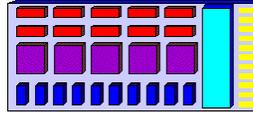


**Description** Top-level assembly  
**File Name** 558a12.RPJ  
**Time** 4:50 PM  
**Failure Rate** 10.721637  
**MTBF** 93,269

| Part Number | Category           | Location                           | Calculation Model | Quality | Tem. Rise | Failure Rate, Unit | Quantity | Failure Rate, % | Failure Rate | MTBF, Unit    |
|-------------|--------------------|------------------------------------|-------------------|---------|-----------|--------------------|----------|-----------------|--------------|---------------|
| 105A706233  | Resistor           | R103                               | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03  |
| 105A710033  | Resistor           | R99,R107,R162                      | Bellcore Issue 6  | Level I |           | 0.002268           | 3.00     | .0635           | 0.006803     | 440974090.03  |
| 105A747033  | Resistor           | R3,R9                              | Bellcore Issue 6  | Level I |           | 0.002268           | 2.00     | .0423           | 0.004535     | 440974090.03  |
| 105A756033  | Resistor           | R2,R10                             | Bellcore Issue 6  | Level I |           | 0.002268           | 2.00     | .0423           | 0.004535     | 440974090.03  |
| 1121747660  | Capacitor          | O1-52,F3,C6,C8,C15-16,C25-26       | Bellcore Issue 6  | Level I |           | 0.002539           | 59.00    | 1.3972          | 0.149802     | 393852661.82  |
| 1122701680  | Capacitor          | M1-10,M12-149                      | Bellcore Issue 6  | Level I |           | 0.001598           | 148.00   | 2.2053          | 0.236439     | 625953979.55  |
| 1124510080  | Capacitor          | C19-20,C24                         | Bellcore Issue 6  | Level I |           | 0.001060           | 3.00     | .0297           | 0.003181     | 943198589.05  |
| 1124510280  | Capacitor          | C1,C10                             | Bellcore Issue 6  | Level I |           | 0.001060           | 2.00     | .0198           | 0.002120     | 943198589.05  |
| 1124515080  | Capacitor          | C22-23                             | Bellcore Issue 6  | Level I |           | 0.001060           | 2.00     | .0198           | 0.002120     | 943198589.05  |
| 1124518180  | Capacitor          | CC5-21                             | Bellcore Issue 6  | Level I |           | 0.001060           | 17.00    | .1681           | 0.018024     | 943198589.05  |
| 1124520080  | Capacitor          | C17-18                             | Bellcore Issue 6  | Level I |           | 0.001060           | 2.00     | .0198           | 0.002120     | 943198589.05  |
| 1124547080  | Capacitor          | CC1-4                              | Bellcore Issue 6  | Level I |           | 0.001060           | 4.00     | .0396           | 0.004241     | 943198589.05  |
| 1124547180  | Capacitor          | C9,C29                             | Bellcore Issue 6  | Level I |           | 0.001060           | 2.00     | .0198           | 0.002120     | 943198589.05  |
| 1129610290  | Capacitor          | C21,C32                            | Bellcore Issue 6  | Level I |           | 0.000712           | 2.00     | .0133           | 0.001425     | 1403854368.14 |
| 1129701080  | Capacitor          | C7,C33                             | Bellcore Issue 6  | Level I |           | 0.005466           | 2.00     | .1020           | 0.010931     | 182961702.19  |
| 1142610060  | Capacitor          | C30-31                             | Bellcore Issue 6  | Level I |           | 0.001587           | 2.00     | .0296           | 0.003174     | 630075050.70  |
| 1149633190  | Capacitor          | C11                                | Bellcore Issue 6  | Level I |           | 0.004933           | 1.00     | .0460           | 0.004933     | 202722669.92  |
| 1174510080  | Capacitor          | NC5-6                              | Bellcore Issue 6  | Level I |           | 0.001060           | 8.00     | .0791           | 0.008482     | 943198589.05  |
| 1174510180  | Capacitor          | NC1-2,NC7-8                        | Bellcore Issue 6  | Level I |           | 0.001060           | 16.00    | .1582           | 0.016964     | 943198589.05  |
| 1174547080  | Capacitor          | NC3-4,NC9-10                       | Bellcore Issue 6  | Level I |           | 0.001060           | 16.00    | .1582           | 0.016964     | 943198589.05  |
| 1211102460  | Inductor           | L3                                 | Bellcore Issue 6  | Level I |           | 0.002268           | 1.00     | .0212           | 0.002268     | 440974090.03  |
| 1212306031  | Inductor           | L6,L8-9,L11-12,L17-19,L21,LL1-4    | Bellcore Issue 6  | Level I |           | 0.002268           | 13.00    | .2750           | 0.029480     | 440974090.03  |
| 1212308050  | Inductor           | L1-2,L4-5,L7,L10,L13-16,L20,L22-26 | Bellcore Issue 6  | Level I |           | 0.002268           | 16.00    | .3384           | 0.036283     | 440974090.03  |
| 1231314321  | Miscellaneous      | Y2                                 | Bellcore Issue 6  | Level I |           | 0.150000           | 1.00     | 1.3990          | 0.150000     | 6666666.67    |
| 1231332721  | Miscellaneous      | Y1                                 | Bellcore Issue 6  | Level I |           | 0.150000           | 1.00     | 1.3990          | 0.150000     | 6666666.67    |
| 1233314350  | Miscellaneous      | OSC1                               | Bellcore Issue 6  | Level I |           | 0.360000           | 1.00     | 3.3577          | 0.360000     | 2777777.78    |
| 1233325051  | Miscellaneous      | OSC2                               | Bellcore Issue 6  | Level I |           | 0.360000           | 1.00     | 3.3577          | 0.360000     | 2777777.78    |
| 1251011010  | Integrated Circuit | U4                                 | Bellcore Issue 6  | Level I | 24.00     | 0.301448           | 1.00     | 2.8116          | 0.301448     | 3317324.97    |
| 1300003240  | Semiconductor      | D1                                 | Bellcore Issue 6  | Level I |           | 0.023881           | 1.00     | .2227           | 0.023881     | 41874327.58   |
| 1300103540  | Semiconductor      | D2                                 | Bellcore Issue 6  | Level I | 26.00     | 0.047482           | 1.00     | .4429           | 0.047482     | 21060574.20   |
| 1300414800  | Semiconductor      | D4                                 | Bellcore Issue 6  | Level I |           | 0.023881           | 1.00     | .2227           | 0.023881     | 41874327.58   |

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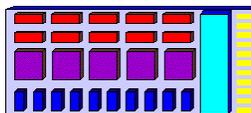


**Description** Top-level assembly  
**File Name** 558a12.RPJ  
**Time** 4:50 PM  
**Failure Rate** 10.721637  
**MTBF** 93,269

| Part Number | Category           | Location                     | Calculation Model | Quality | Tem. Rise | Failure Rate, Unit | Quantity | Failure Rate, % | Failure Rate | MTBF, Unit   |
|-------------|--------------------|------------------------------|-------------------|---------|-----------|--------------------|----------|-----------------|--------------|--------------|
| 1301005440  | Semiconductor      | Q3,D3                        | Bellcore Issue 6  | Level I |           | 0.023881           | 2.00     | .4455           | 0.047762     | 41874327.58  |
| 1304100540  | Semiconductor      | LED1                         | Bellcore Issue 6  | Level I |           | 0.004877           | 1.00     | .0455           | 0.004877     | 205063180.81 |
| 1314101010  | Integrated Circuit | Q2                           | Bellcore Issue 6  | Level I | 9.00      | 0.112485           | 1.00     | 1.0491          | 0.112485     | 8890058.82   |
| 1314108312  | Integrated Circuit | Q1                           | Bellcore Issue 6  | Level I | 27.00     | 0.363156           | 1.00     | 3.3871          | 0.363156     | 2753638.40   |
| 1315442010  | Semiconductor      | U3                           | Bellcore Issue 6  | Level I | 28.00     | 0.166110           | 1.00     | 1.5493          | 0.166110     | 6020099.27   |
| 14S3000300  | Integrated Circuit | TF1                          | Bellcore Issue 6  | Level I | 4.00      | 0.079239           | 1.00     | .7391           | 0.079239     | 12620044.05  |
| 14S3006000  | Integrated Circuit | DN1                          | Bellcore Issue 6  | Level I | 3.00      | 0.073774           | 1.00     | .6881           | 0.073774     | 13554975.01  |
| 14S3128420  | Integrated Circuit | U8                           | Bellcore Issue 6  | Level I | 7.00      | 0.097911           | 1.00     | .9132           | 0.097911     | 10213356.27  |
| 14S3526601  | Integrated Circuit | U20                          | Bellcore Issue 6  | Level I | 25.00     | 0.320878           | 1.00     | 2.9928          | 0.320878     | 3116453.93   |
| 14S4021300  | Integrated Circuit | U7,U14                       | Bellcore Issue 6  | Level I | 6.00      | 0.091286           | 2.00     | 1.7028          | 0.182571     | 10954631.16  |
| 14S4026600  | Integrated Circuit | U9                           | Bellcore Issue 6  | Level I | 35.00     | 0.247737           | 1.00     | 2.3106          | 0.247737     | 4036540.93   |
| 14S4048500  | Integrated Circuit | U2,U1                        | Bellcore Issue 6  | Level I | 13.00     | 0.147672           | 2.00     | 2.7547          | 0.295344     | 6771770.53   |
| 14S4237120  | Integrated Circuit | U18                          | Bellcore Issue 6  | Level I | 19.00     | 0.112292           | 1.00     | 1.0473          | 0.112292     | 8905354.44   |
| 14S4243910  | Integrated Circuit | U17                          | Bellcore Issue 6  | Level I | 27.00     | 0.168422           | 1.00     | 1.5709          | 0.168422     | 5937462.05   |
| 14S4255900  | Integrated Circuit | U11A                         | Bellcore Issue 6  | Level I | 14.00     | 0.086245           | 1.00     | .8044           | 0.086245     | 11594908.63  |
| 14S4378100  | Integrated Circuit | U19                          | Bellcore Issue 6  | Level I | 7.00      | 0.097911           | 1.00     | .9132           | 0.097911     | 10213356.27  |
| 14S4382300  | Integrated Circuit | U25                          | Bellcore Issue 6  | Level I |           | 0.059366           | 1.00     | .5537           | 0.059366     | 16844654.92  |
| 14S4397700  | Integrated Circuit | U15                          | Bellcore Issue 6  | Level I | 14.00     | 0.086245           | 1.00     | .8044           | 0.086245     | 11594908.63  |
| 14S4900010  | Integrated Circuit | U10                          | Bellcore Issue 6  | Level I | 28.00     | 0.176929           | 1.00     | 1.6502          | 0.176929     | 5651999.15   |
| 14S5324500  | Integrated Circuit | U23                          | Bellcore Issue 6  | Level I | 7.00      | 0.091290           | 1.00     | .8515           | 0.091290     | 10954135.97  |
| 14S5801400  | Integrated Circuit | U12                          | Bellcore Issue 6  | Level I |           | 0.037889           | 1.00     | .3534           | 0.037889     | 26392869.26  |
| 14S6025630  | Integrated Circuit | U16                          | Bellcore Issue 6  | Level I | 8.00      | 0.299631           | 1.00     | 2.7946          | 0.299631     | 3337436.64   |
| 14S6046400  | Integrated Circuit | U5                           | Bellcore Issue 6  | Level I | 30.00     | 1.994117           | 1.00     | 18.5990         | 1.994117     | 501475.04    |
| 14S6334610  | Integrated Circuit | U6                           | Bellcore Issue 6  | Level I | 17.00     | 0.099232           | 1.00     | .9255           | 0.099232     | 10077347.00  |
| 14S8416800  | Integrated Circuit | U21                          | Bellcore Issue 6  | Level I | 12.00     | 0.077420           | 1.00     | .7221           | 0.077420     | 12916624.12  |
| 1540701308  | Resistor           | RP3,RP8                      | Bellcore Issue 6  | Level I |           | 0.006246           | 2.00     | .1165           | 0.012492     | 160102772.00 |
| 1540710008  | Resistor           | RN11-13,RN16,RN19-21,RN24-28 | Bellcore Issue 6  | Level I |           | 0.006246           | 12.00    | .6991           | 0.074952     | 160102772.00 |
| 1540715308  | Resistor           | RN15                         | Bellcore Issue 6  | Level I |           | 0.006246           | 1.00     | .0583           | 0.006246     | 160102772.00 |
| 1540722008  | Resistor           | RN3-7,RN9-10                 | Bellcore Issue 6  | Level I |           | 0.006246           | 7.00     | .4078           | 0.043722     | 160102772.00 |
| 1540727208  | Resistor           | RP7,RP10,RN17,RN22           | Bellcore Issue 6  | Level I |           | 0.006246           | 4.00     | .2330           | 0.024984     | 160102772.00 |
| 1540733008  | Resistor           | RN18                         | Bellcore Issue 6  | Level I |           | 0.006246           | 1.00     | .0583           | 0.006246     | 160102772.00 |

### AAEON Reliability Prediction Report

**Part Number** 9697558000-1  
**Reference Des**  
**Date** 02. 1, 2000  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temperature** 25.00



**Description** Top-level assembly  
**File Name** 558a12.RPJ  
**Time** 4:50 PM  
**Failure Rate** 10.721637  
**MTBF** 93,269

| Part Number | Category      | Location  | Calculation Model | Quality | Tem. Rise | Failure Rate, Unit | Quantity | Failure Rate, % | Failure Rate | MTBF, Unit   |
|-------------|---------------|---|-------------------|---------|-----------|--------------------|----------|-----------------|--------------|--------------|
| 1540747208  | Resistor      | RN2,RP11-12,RP15,RP22                           | Bellcore Issue 6  | Level I |           | 0.006246           | 5.00     | .2913           | 0.031230     | 160102772.00 |
| 1540756208  | Resistor      | RP26  | Bellcore Issue 6  | Level I |           | 0.006246           | 1.00     | .0583           | 0.006246     | 160102772.00 |
| 1540775008  | Resistor      | RN1   | Bellcore Issue 6  | Level I |           | 0.006246           | 1.00     | .0583           | 0.006246     | 160102772.00 |
| 1540782208  | Resistor      | RP1-2,RP4-6,RP8-9,RP13-14,RN14-<br>RP16-21,RP23 | Bellcore Issue 6  | Level I |           | 0.006246           | 21.00    | 1.2234          | 0.131166     | 160102772.00 |
| 1651003222  | Connection    | U13   | Bellcore Issue 6  | Level I |           | 0.018207           | 1.00     | .1698           | 0.018207     | 54923766.92  |
| 1651203291  | Connection    | U22   | Bellcore Issue 6  | Level I |           | 0.018207           | 1.00     | .1698           | 0.018207     | 54923766.92  |
| 1651572990  | Connection    | DIMM2   | Bellcore Issue 6  | Level I |           | 0.081932           | 1.00     | .7642           | 0.081932     | 12205281.54  |
| 1653002201  | Connection    | J1  | Bellcore Issue 6  | Level I |           | 0.002276           | 1.00     | .0212           | 0.002276     | 439390135.35 |
| 1653003202  | Connection    | J2-6  | Bellcore Issue 6  | Level I |           | 0.003414           | 5.00     | .1592           | 0.017069     | 292926756.90 |
| 1653005202  | Connection    | CN5   | Bellcore Issue 6  | Level I |           | 0.005690           | 1.00     | .0531           | 0.005690     | 175756054.14 |
| 1653007203  | Connection    | CN7   | Bellcore Issue 6  | Level I |           | 0.007966           | 1.00     | .0743           | 0.007966     | 125540038.67 |
| 1653013202  | Connection    | CN4   | Bellcore Issue 6  | Level I |           | 0.014793           | 1.00     | .1380           | 0.014793     | 67598482.36  |
| 1653017201  | Connection    | CN11  | Bellcore Issue 6  | Level I |           | 0.019345           | 1.00     | .1804           | 0.019345     | 51692957.10  |
| 1653022202  | Connection    | CN9   | Bellcore Issue 6  | Level I |           | 0.025035           | 1.00     | .2335           | 0.025035     | 39944557.76  |
| 1653025202  | Connection    | CN1   | Bellcore Issue 6  | Level I |           | 0.028449           | 1.00     | .2653           | 0.028449     | 35151210.83  |
| 1752000800  | Miscellaneous | FS4   | Bellcore Issue 6  | Level I |           | 0.030000           | 1.00     | .2798           | 0.030000     | 33333333.33  |
| 1752311000  | Miscellaneous | FS1-3   | Bellcore Issue 6  | Level I |           | 0.030000           | 3.00     | .8394           | 0.090000     | 33333333.33  |